laser pulse accelerated the electrons in the plasma to MeV energies, and Bremsstrahlung X-rays were produced as the result of the electron collision with the target material. The majority of the flux was estimated to be 20 – 150 keV. This is in the range suitable for diagnostic medical imaging. Both the duration of the LPP X-ray source (< 1ps) and its size (< 60 um) are much less than conventional X-ray sources and will allow smaller features to be imaged and different imaging modalities to be employed. These LPP X-ray sources can be optimized at photon energies yielding maximum contrast between normal tissue and cancerous tissue, producing better than 100 micron resolution.--

The following abstract (which is also submitted on a separate page) should be inserted on page 20 of the specification:

--TIME-GATED IMAGING WITH A SPLIT-BEAM SOURCE

Abstract

An imaging apparatus includes an electromagnetic pulse source, a beam splitter, an X-ray source, and a time gate. The electromagnetic pulse source generates pulses. The beam splitter splits a pulse into a first portion and a second portion. The X-ray source generates a beam in response to the first pulse portion, the beam directed toward an object for generating an object image. The time gate captures an object image in response to the second pulse portion. A related method apart from the apparatus performs the above steps.--

In the Claims:

Please amend claim 3 as follows:

3. (Amended) The apparatus of claim 2 wherein the laser produces a pulse having a width of about 10 – 30 femtoseconds and an energy of at least 125 – 250 mJ at a rate of about 100 – 250 pulses per second.

REMARKS

The specification has been amended herein to insert Applicant's claim of priority, and to insert the Abstract, originally included in the first page of the International Application, as the last page of the specification. No new matter has been added.